

10

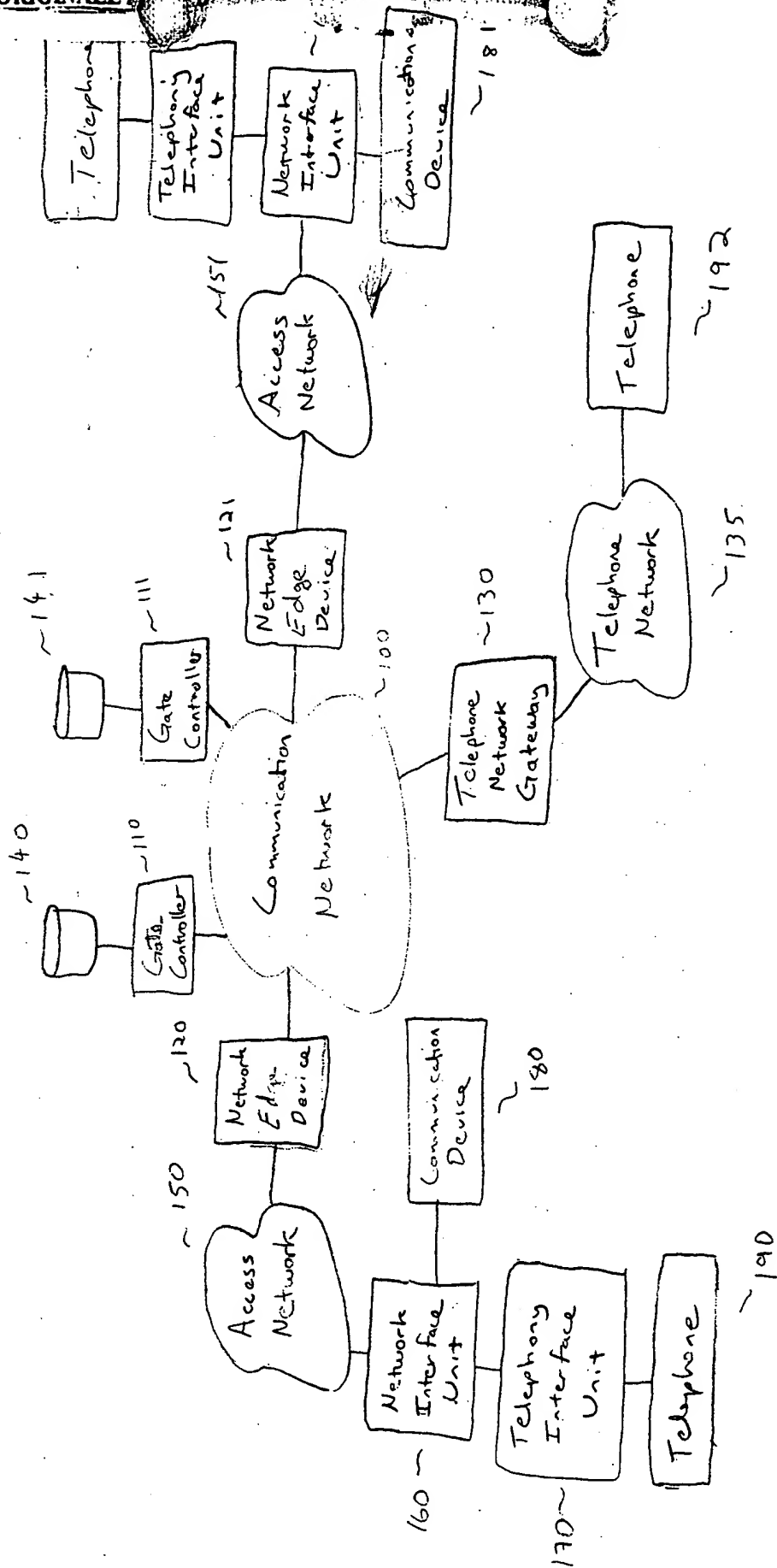


FIG. 1

to  $GC_0$  and  $GC_T$ , a setup  
the call

~210

Establish a gate at  $NED_T$  upon receiving the  
setup message from  $GC_T$

~220

Establish a gate at  $NED_0$  upon receiving the  
setup message from  $GC_0$

~230

Send a reserve message from  $TIU_0$  to  $NED_0$

~240

Send a reserve message from  $TIU_T$  to  $NED_T$

~250

Exchange end-to-end message between  $TIU_0$  and  $TIU_T$

~260

Upon connecting the calling party and the called  
party, send a commit message from  $TIU_0$  to  
 $NED_0$  and from  $TIU_T$  to  $NED_T$

~270

Upon receiving the commit message at  $NED_0$ ,  
open the gate at  $NED_0$

~280

Upon receiving the commit message at  $NED_T$ ,  
open the gate at  $NED_T$

~290

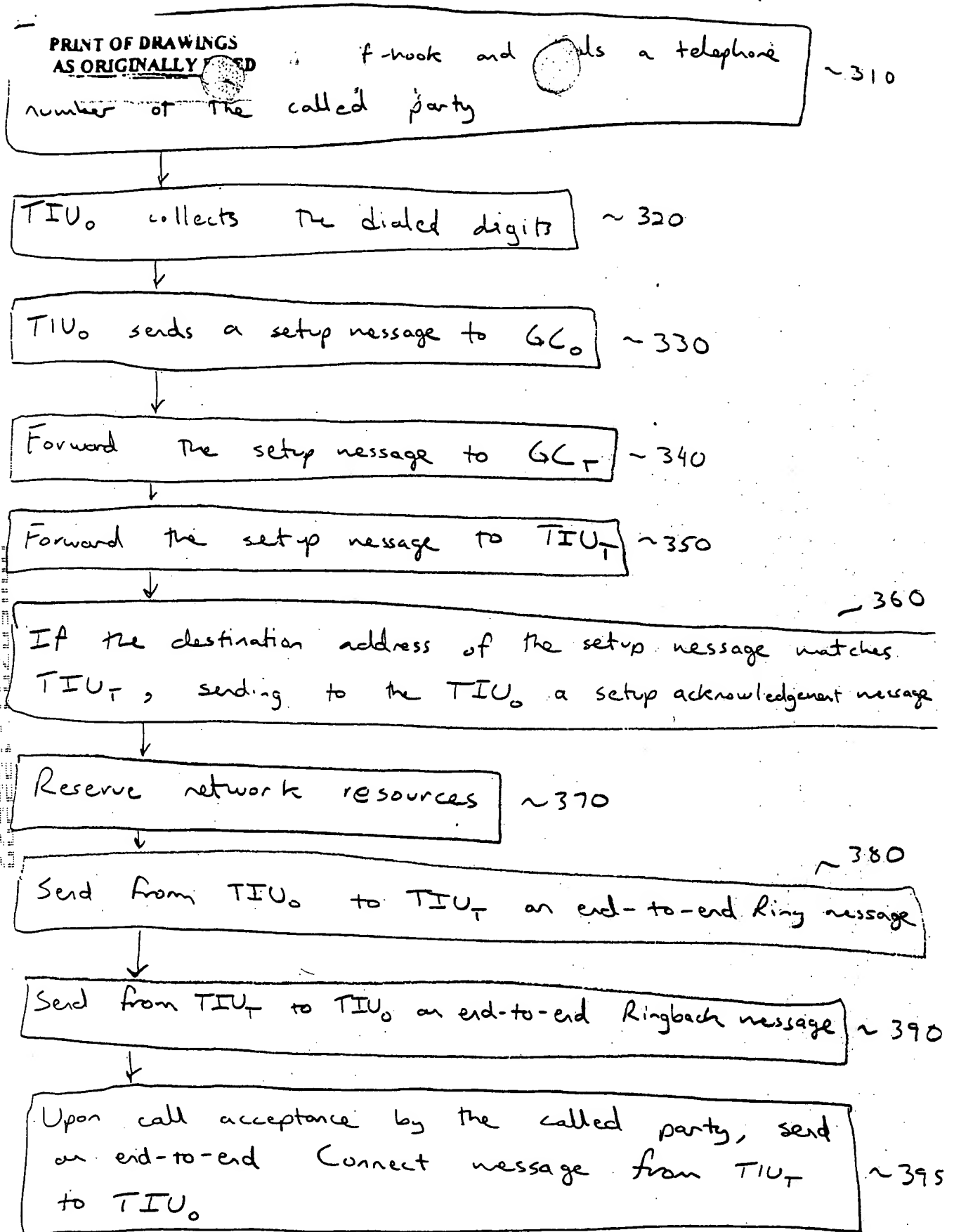
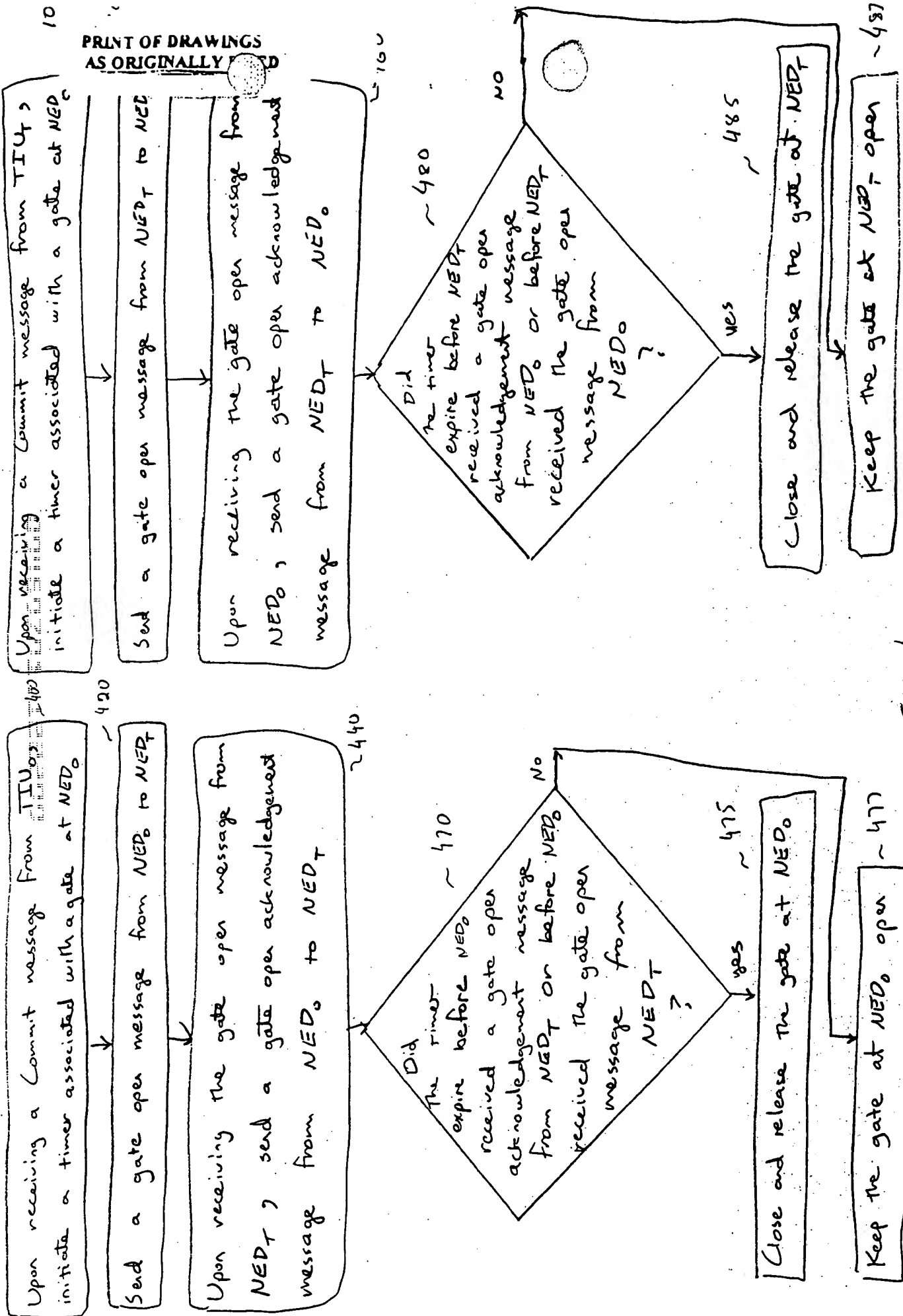


FIG. 3



TIU<sub>0</sub> NED<sub>0</sub> ~ 500

Translate the local source address and local destination address to a global source address ~ 510 and a global destination address

Forward the translated packets from NED<sub>0</sub> to NED<sub>T</sub> ~ 520

Translate the global source address and the global destination address to a second local source address ~ 530 and a second local address

Send the translated packets from NED<sub>T</sub> to TIU<sub>T</sub> ~ 540

FIG. 5

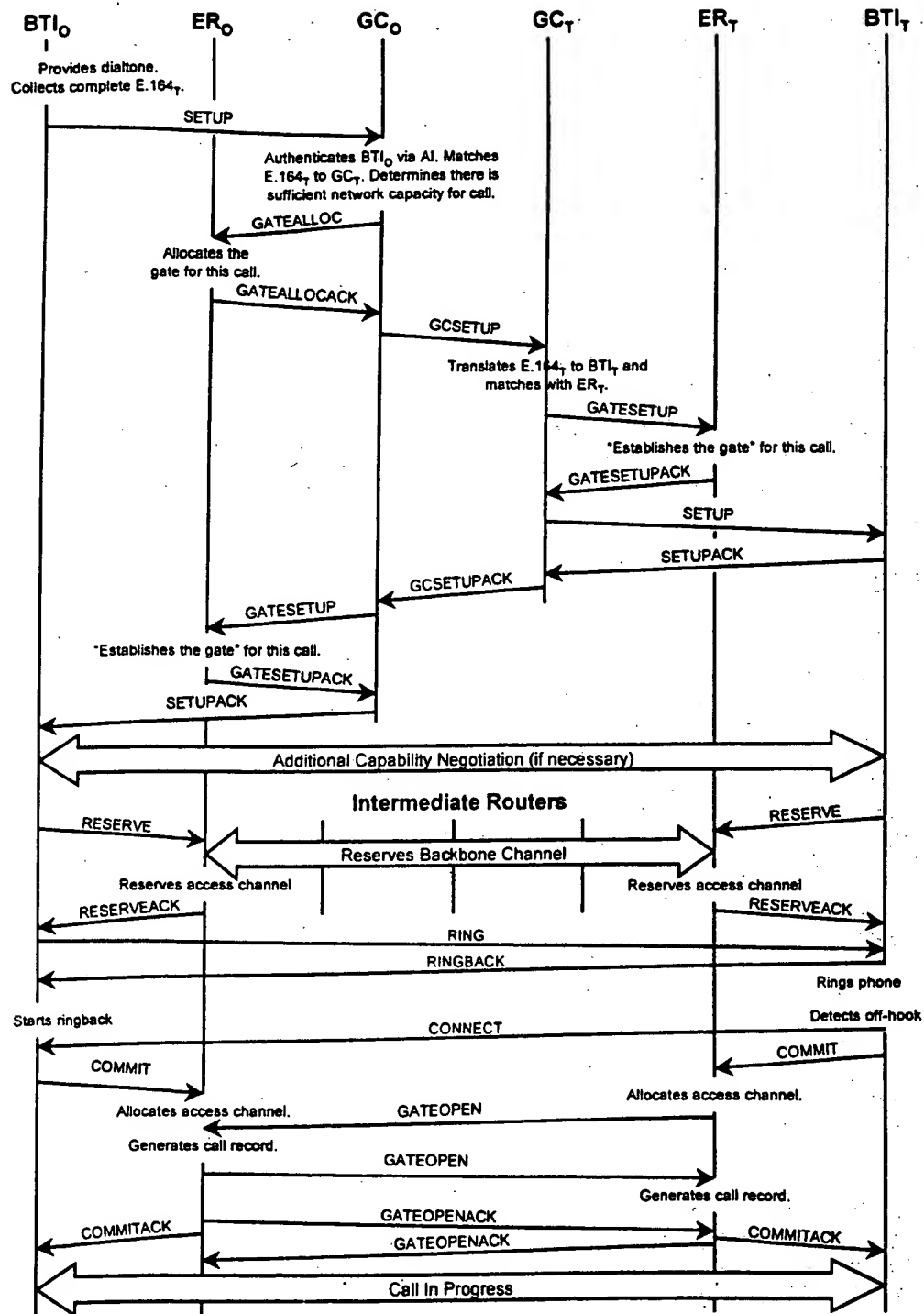


Figure 6

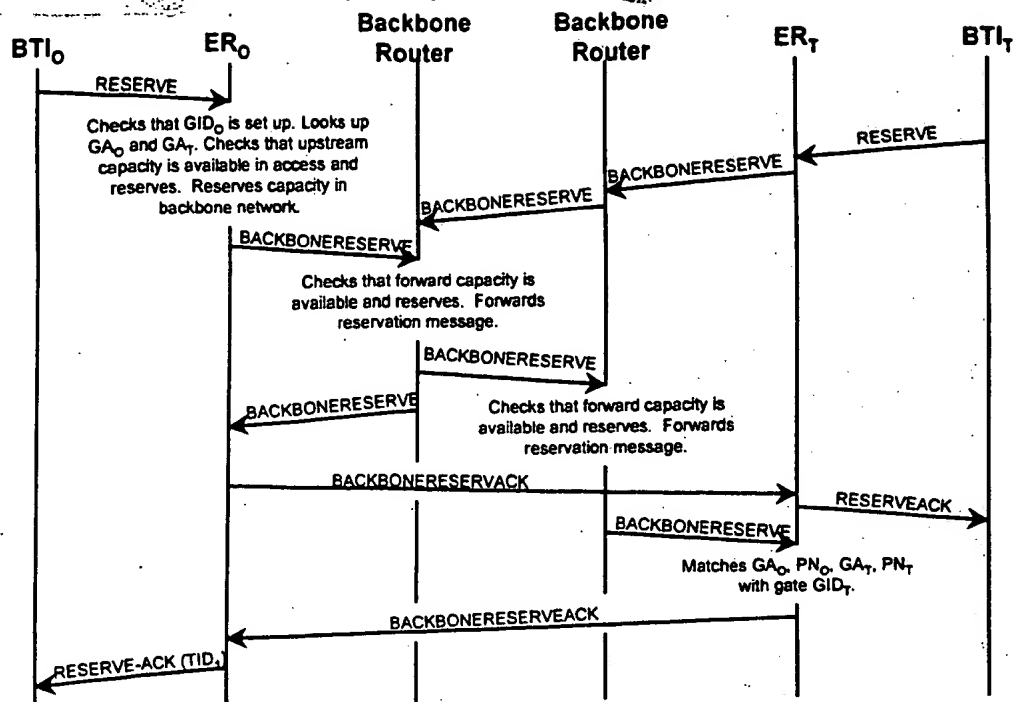


Figure 7

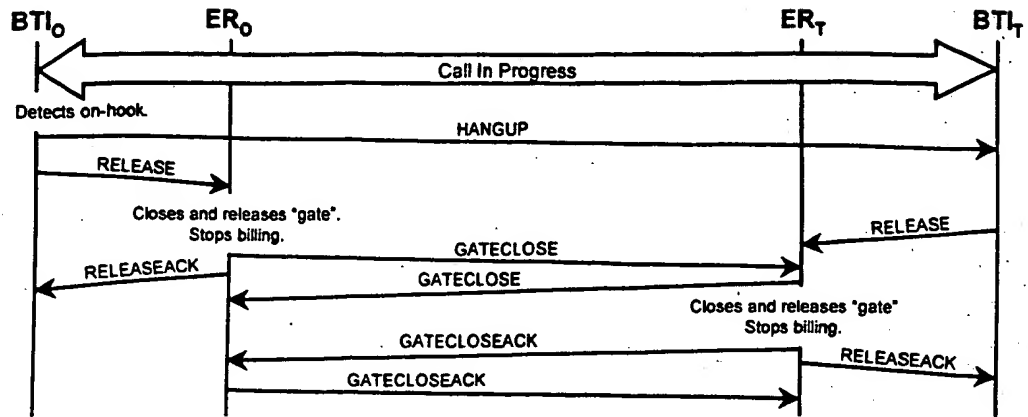


Figure 8



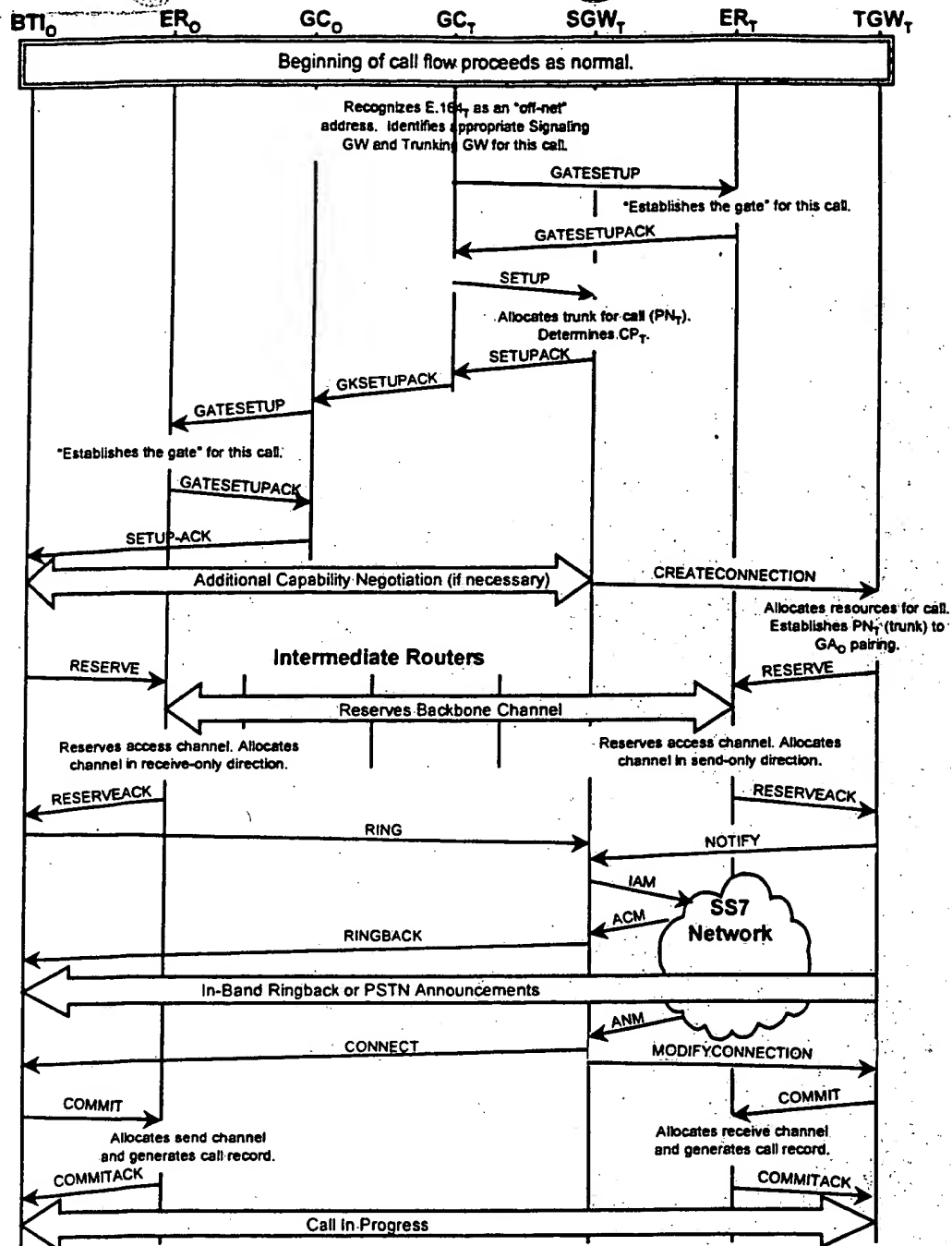


Figure 9

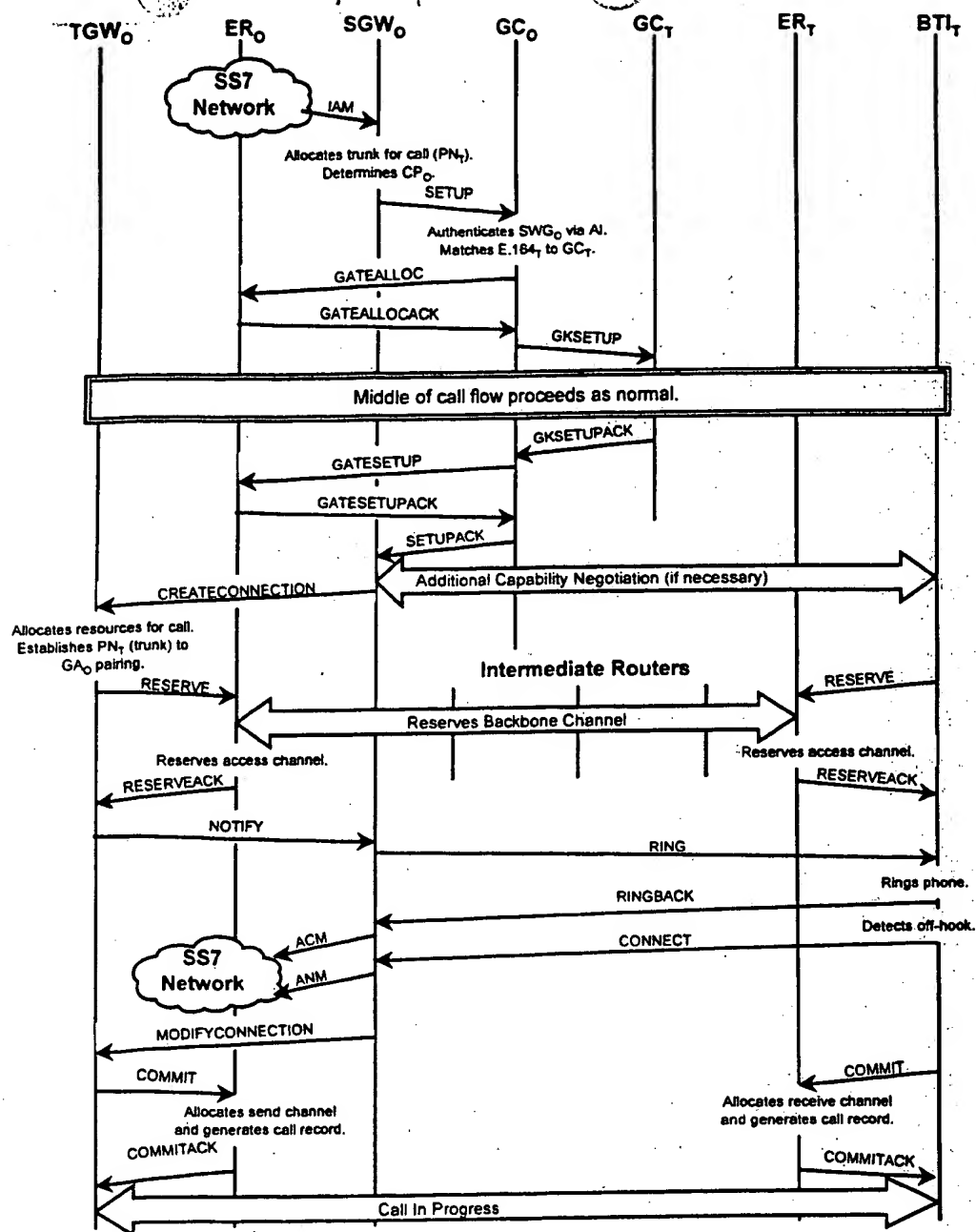


Figure 10

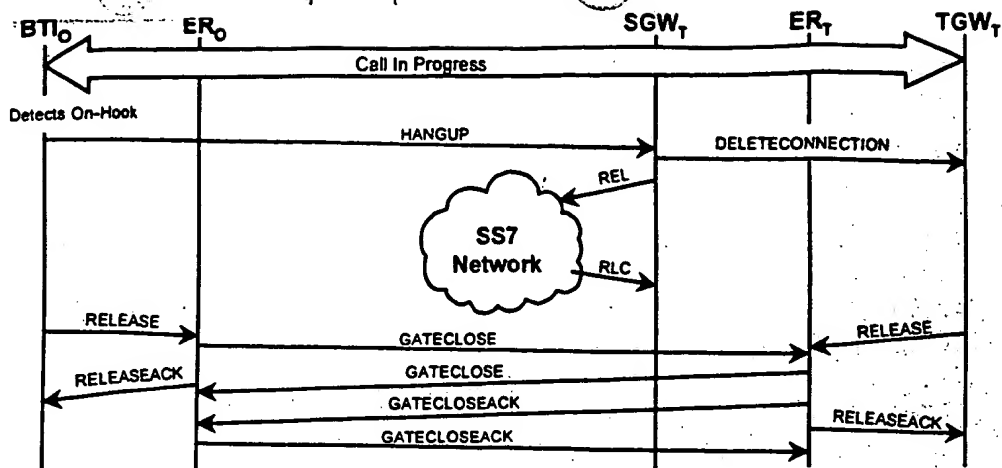


Figure 11

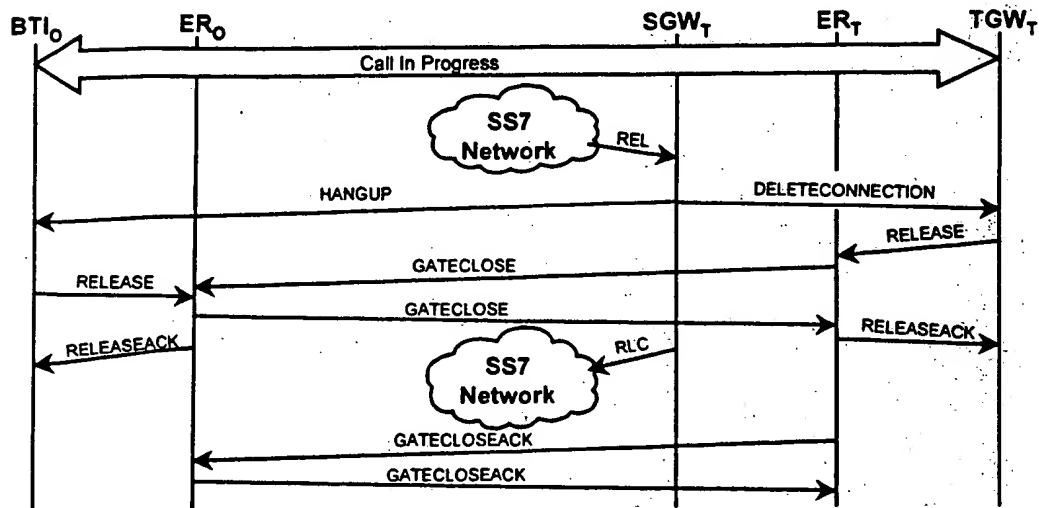


Figure 12

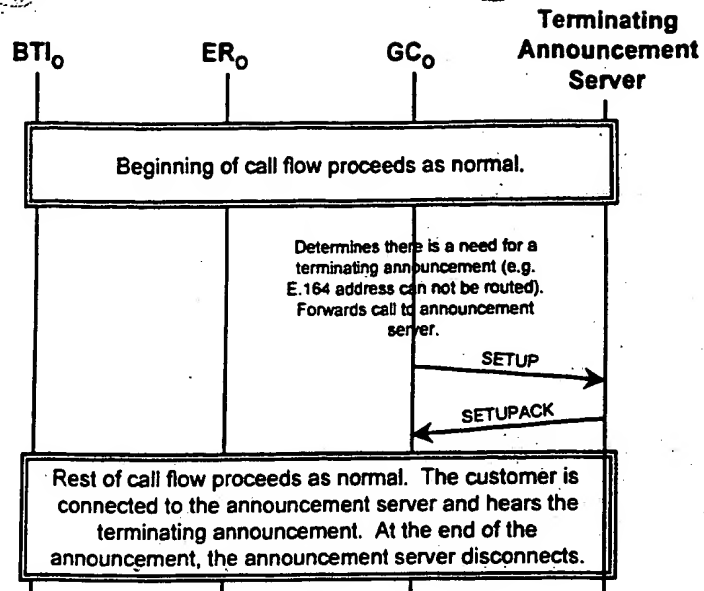


Figure 13

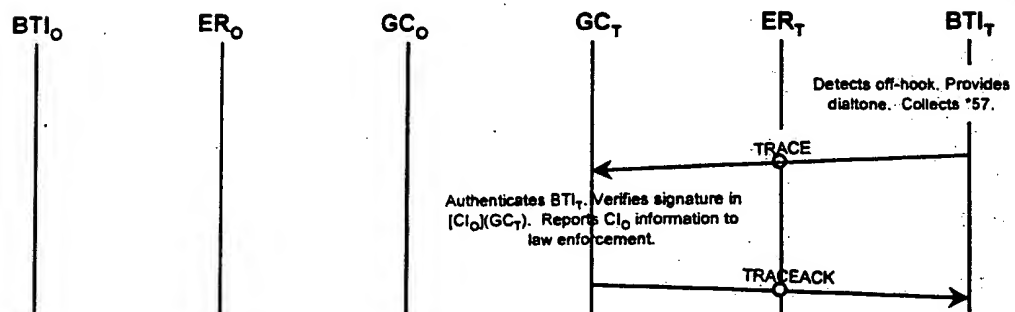


Figure 14

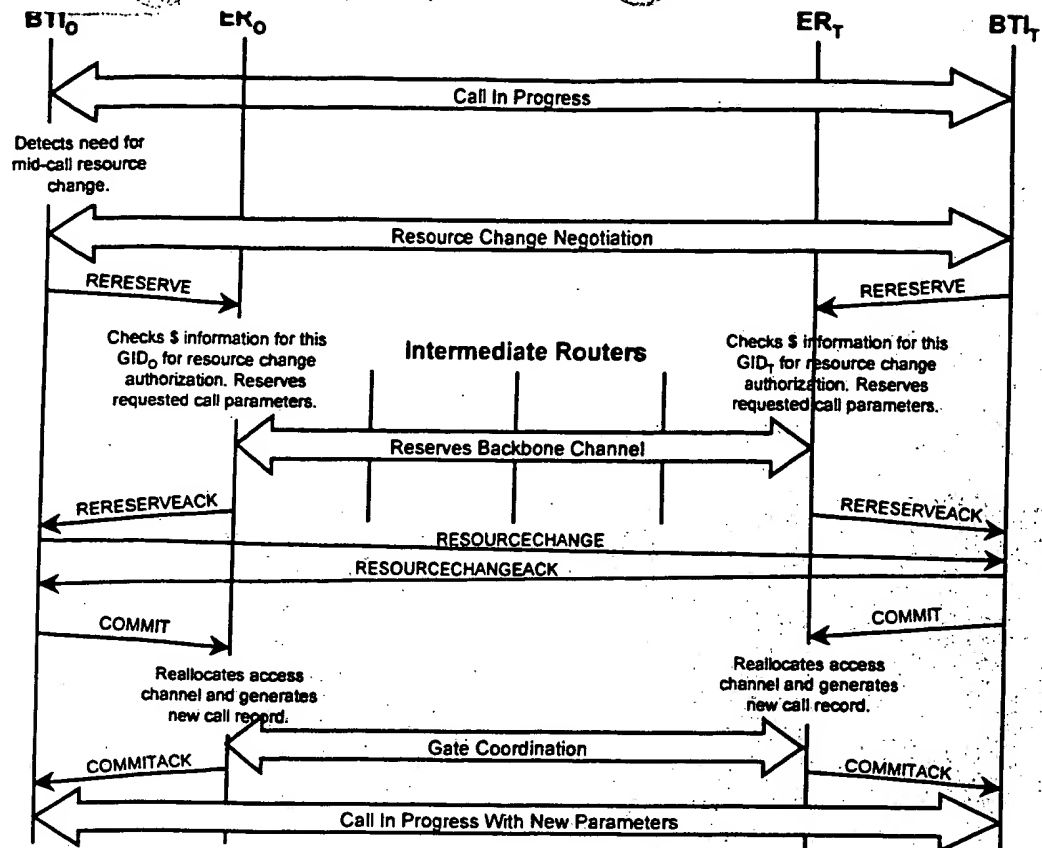


Figure 15

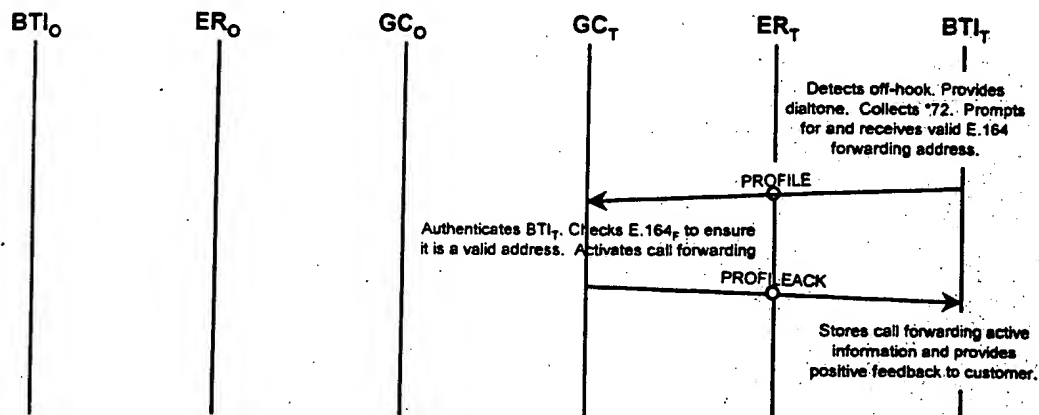


Figure 16

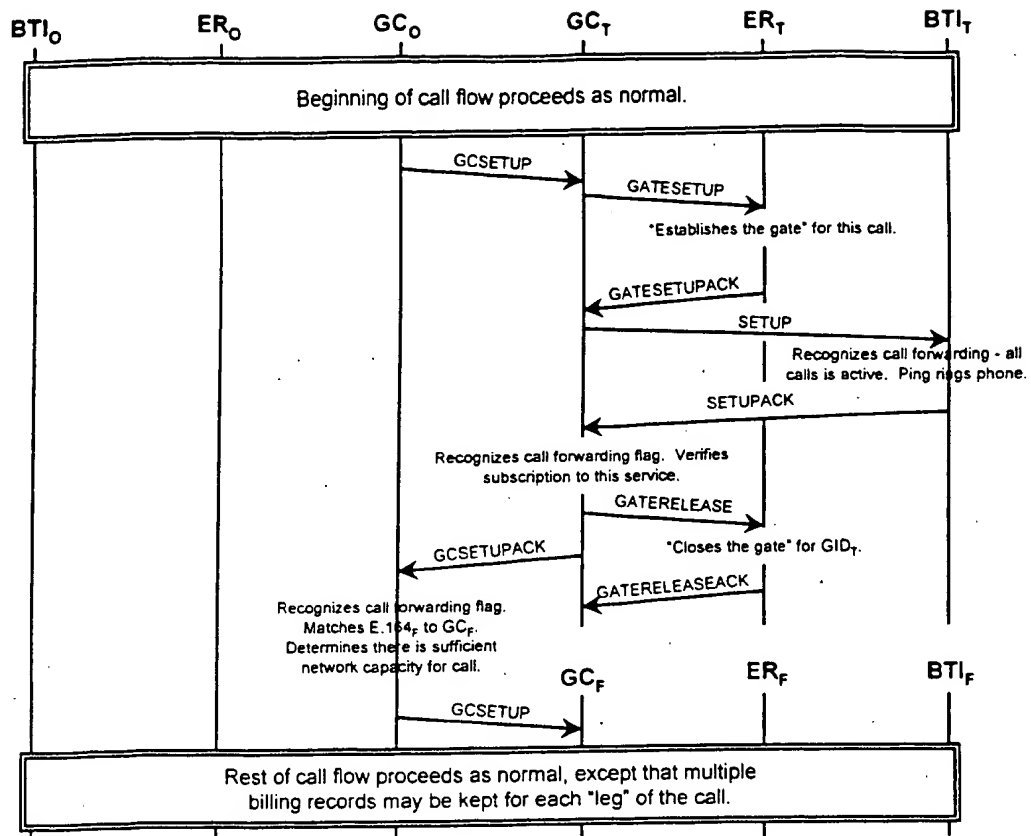


Figure 17

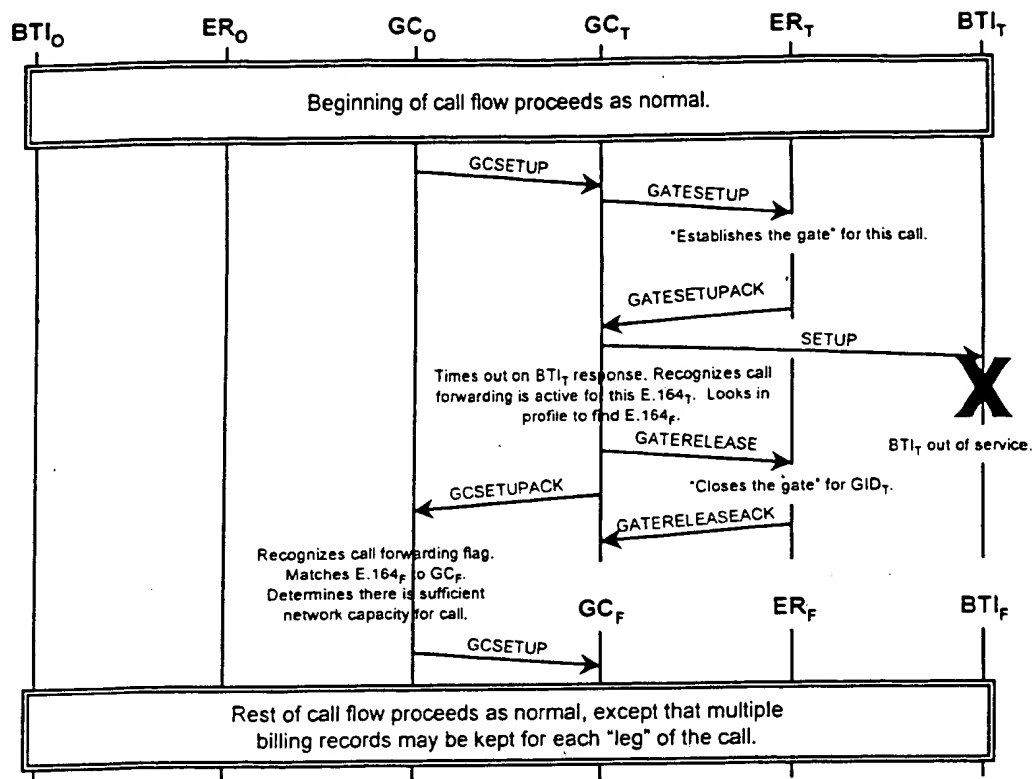


Figure 18

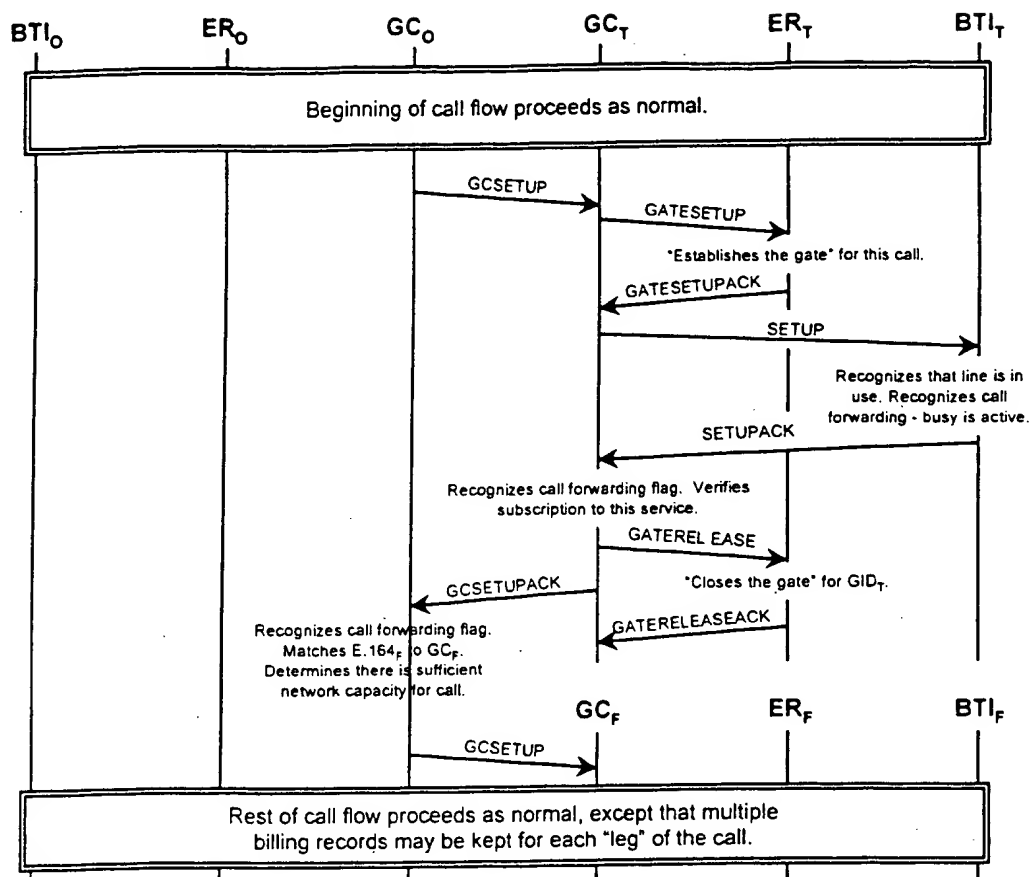


Figure 19



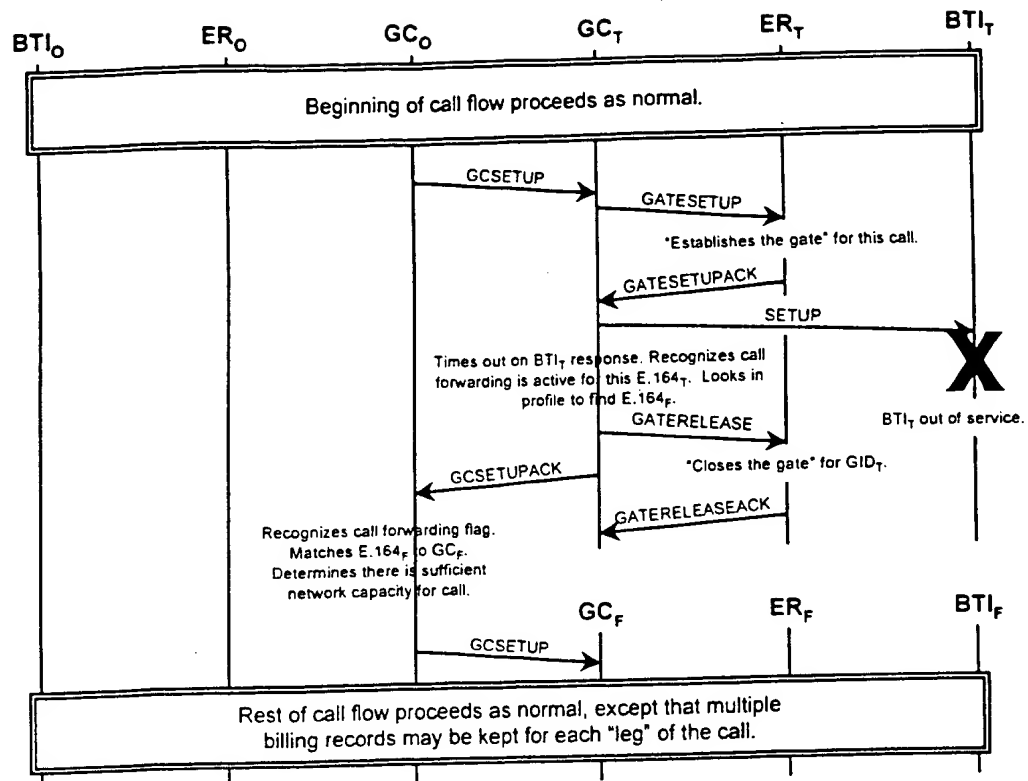


Figure 20

PRINT OF DRAWINGS  
AS ORIGINALLY! D

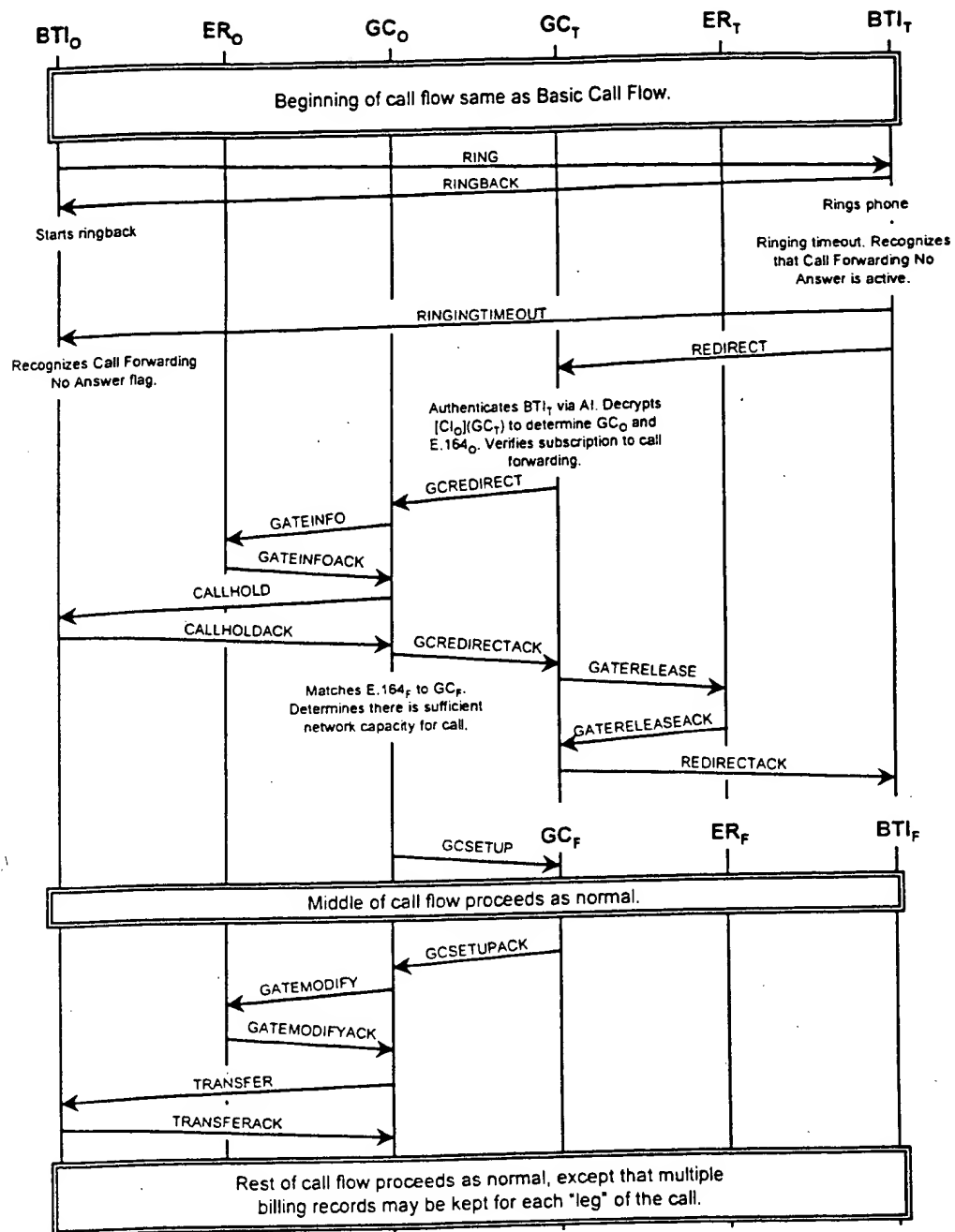


Figure 21

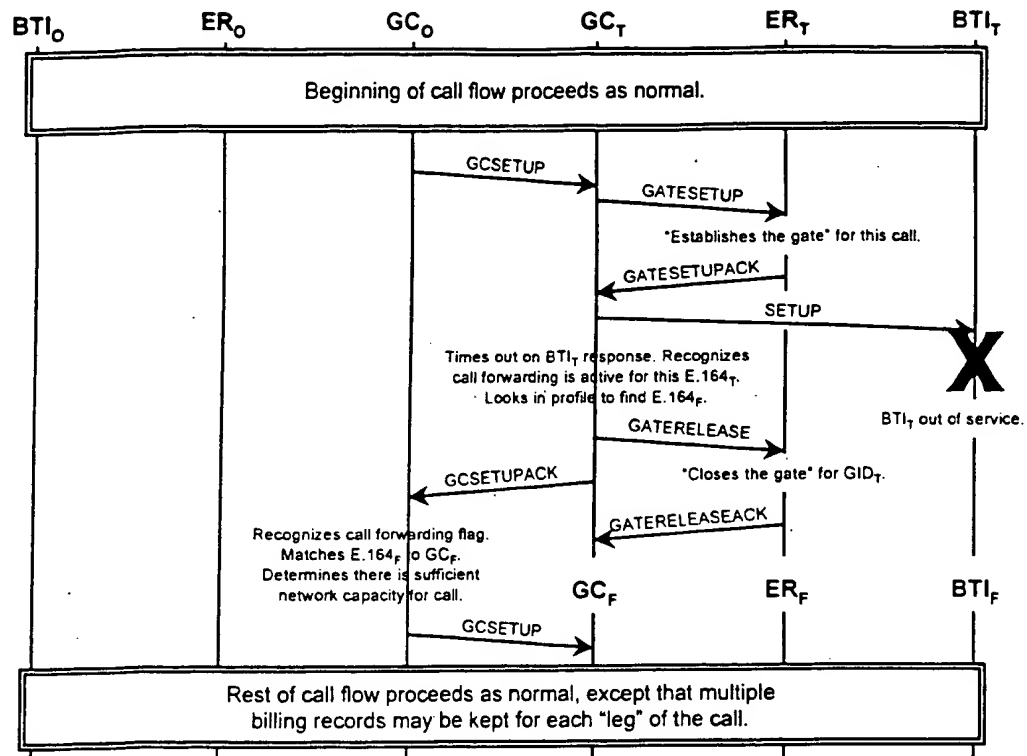


Figure 22

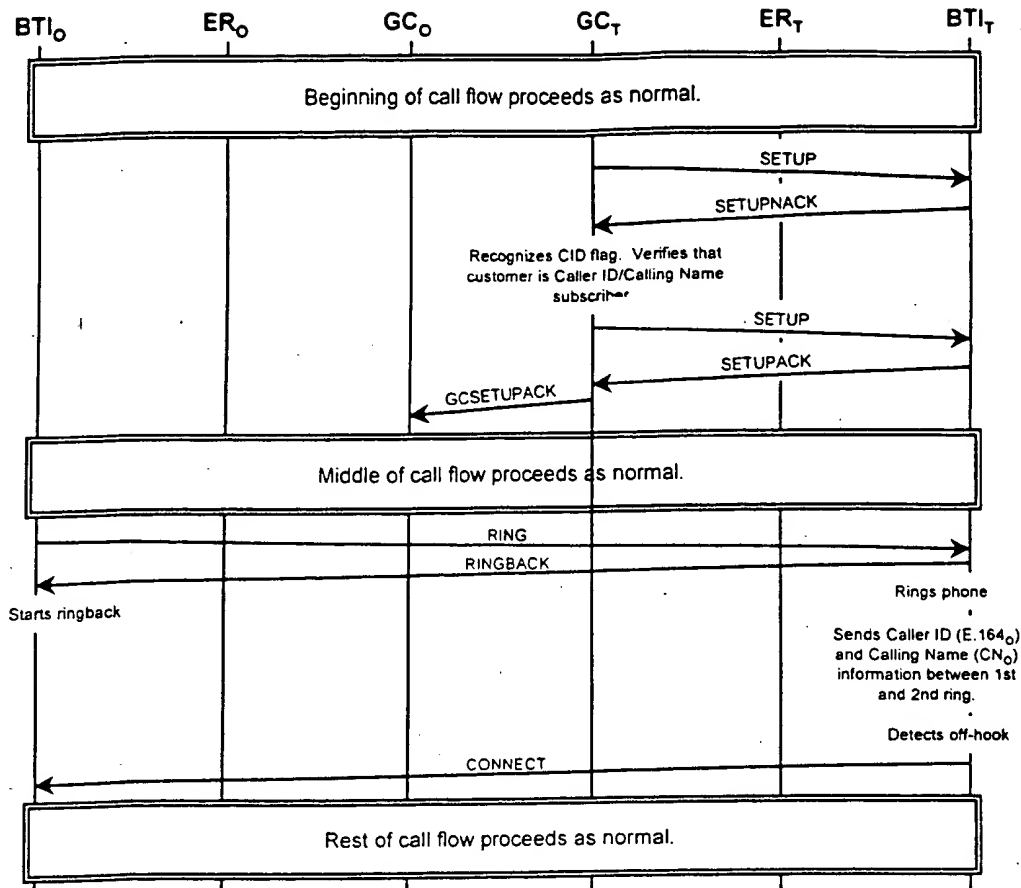


Figure 23



**Figure 24**

The diagram illustrates the sequence of events in a 3-way call setup:

- Initial State:** BTI<sub>0</sub>, ER<sub>0</sub>, GC<sub>0</sub>, GC<sub>T1</sub>, ER<sub>T1</sub>, BTI<sub>T1</sub>, GC<sub>T2</sub>, ER<sub>T2</sub>, BTI<sub>T2</sub>.
- Call In Progress:** A long arrow spans from BTI<sub>0</sub> to BTI<sub>T1</sub>.
  - BTI<sub>0</sub> actions: Detects Flash-Hook. Locally puts call to BTI<sub>T1</sub> on "hold". While sending out empty voice packets (or music on hold) to BTI<sub>T1</sub>. Provides dialtone. Collects E.164<sub>T2</sub>.
  - BTI<sub>T1</sub> action: Maintains voice connection.
- Call flow between BTI<sub>0</sub> and BTI<sub>T2</sub> proceeds identically to basic call flow until resource reservation.** (Boxed note)
- Resource Reservation:**
  - BTI<sub>0</sub> sends RESERVE to ER<sub>0</sub>.
  - ER<sub>0</sub> sends RESERVE ACK to BTI<sub>0</sub>.
  - GC<sub>0</sub> to GC<sub>T1</sub>: Reserves Backbone Channel.
  - BTI<sub>T1</sub> sends RESERVE to ER<sub>T1</sub>.
  - ER<sub>T1</sub> sends RESERVE ACK to BTI<sub>T1</sub>.
- Ring and Connect:**
  - BTI<sub>0</sub> sends RING to ER<sub>0</sub>.
  - ER<sub>0</sub> sends RINGBACK to BTI<sub>0</sub>.
  - BTI<sub>T1</sub> sends RING to ER<sub>T1</sub>.
  - ER<sub>T1</sub> sends RINGBACK to BTI<sub>T1</sub>.
  - BTI<sub>0</sub> sends CONNECT to ER<sub>0</sub>.
  - ER<sub>0</sub> sends CONNECT to BTI<sub>0</sub>.
  - BTI<sub>T1</sub> sends CONNECT to ER<sub>T1</sub>.
  - ER<sub>T1</sub> sends CONNECT to BTI<sub>T1</sub>.
- Commit and Allocation:**
  - BTI<sub>0</sub> sends COMMIT to ER<sub>0</sub>.
  - ER<sub>0</sub> sends COMMIT to BTI<sub>0</sub>. Action: Allocates new access channel and generates new call record.
  - BTI<sub>T1</sub> sends COMMIT to ER<sub>T1</sub>.
  - ER<sub>T1</sub> sends COMMIT to BTI<sub>T1</sub>. Action: Allocates access channel and generates call record.
- Gate Coordination:**
  - BTI<sub>0</sub> sends COMMITACK to ER<sub>0</sub>.
  - ER<sub>0</sub> sends COMMITACK to BTI<sub>0</sub>.
  - GC<sub>0</sub> to GC<sub>T1</sub>: Gate Coordination.
  - BTI<sub>T1</sub> sends COMMITACK to ER<sub>T1</sub>.
  - ER<sub>T1</sub> sends COMMITACK to BTI<sub>T1</sub>.
- Call In Progress (Second Instance):** A long arrow spans from BTI<sub>0</sub> to BTI<sub>T2</sub>.
  - BTI<sub>0</sub> action: Detects Flash-Hook. Bridges voice connections between BTI<sub>0</sub>, BTI<sub>T1</sub>, and BTI<sub>T2</sub>.
  - BTI<sub>T2</sub> action: Maintains voice connection.
- 3-Way Call In Progress:** A long arrow spans from BTI<sub>0</sub> to BTI<sub>T2</sub>.

**Figure 25**

[illegible]

**Figure 26**

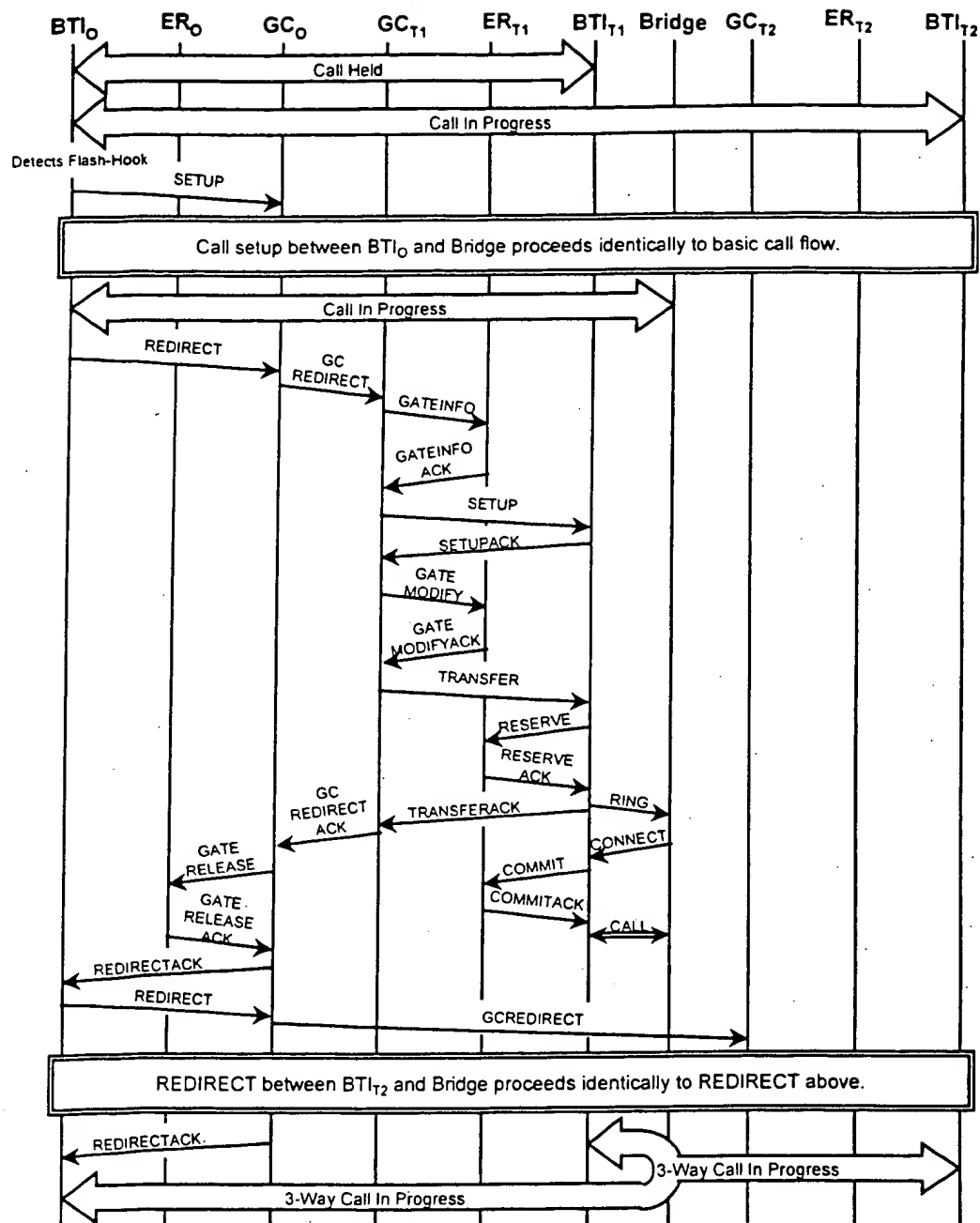


Figure 27



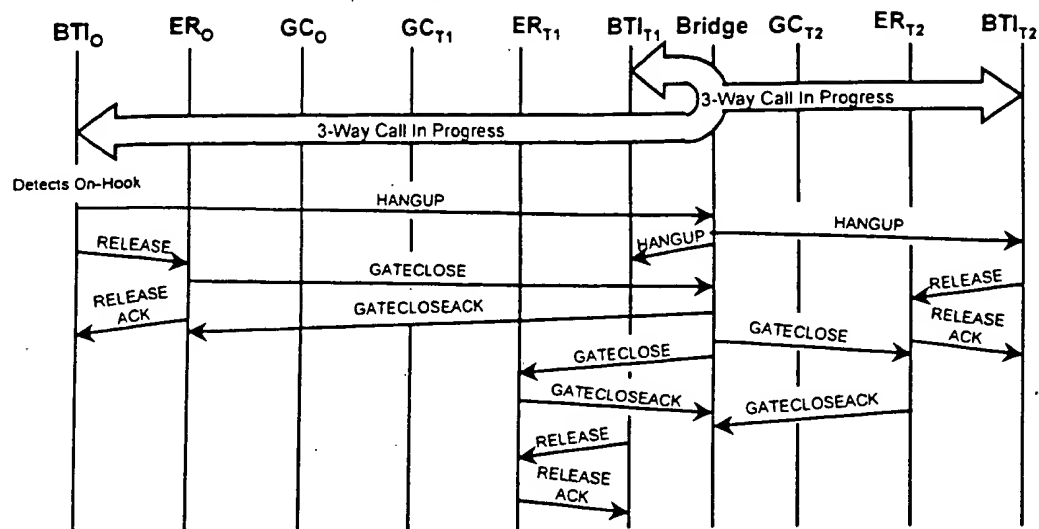


Figure 28

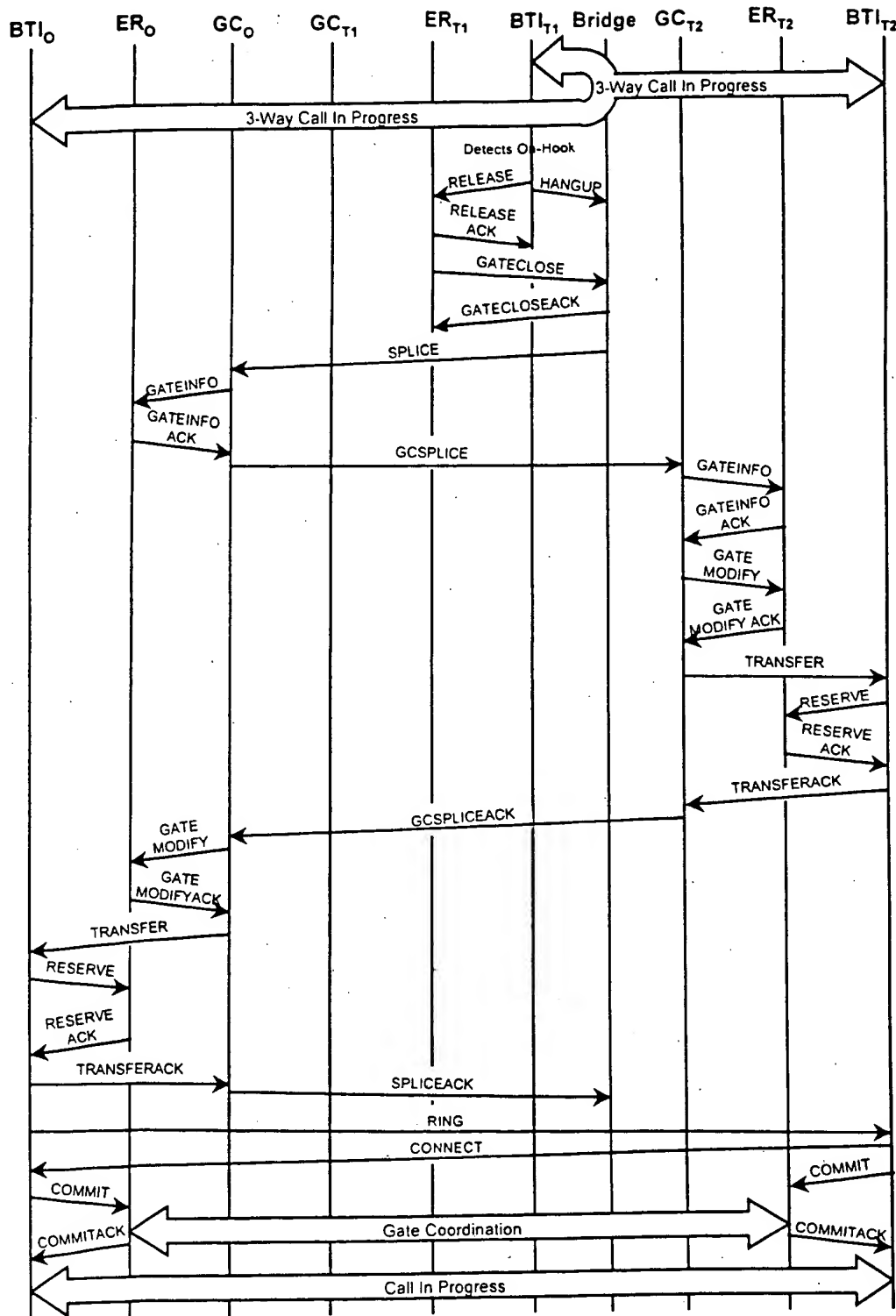


Figure 29

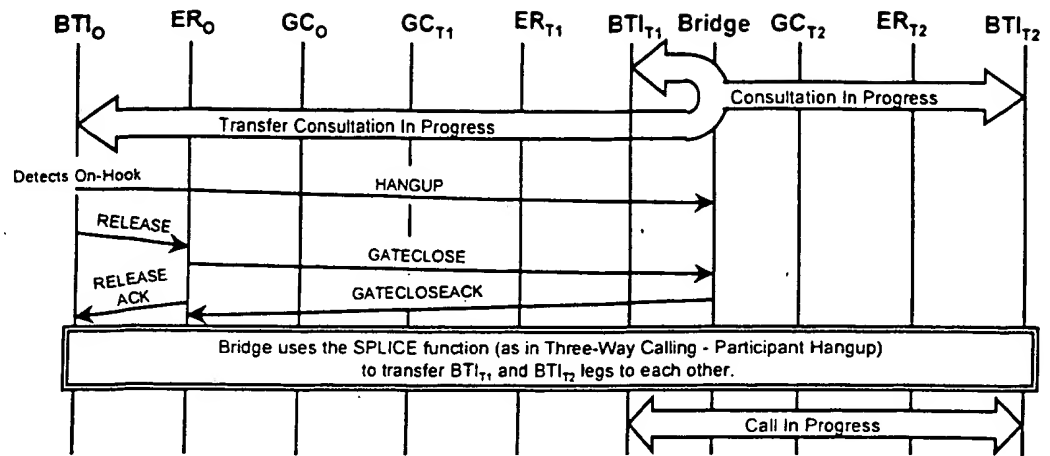


Figure 30

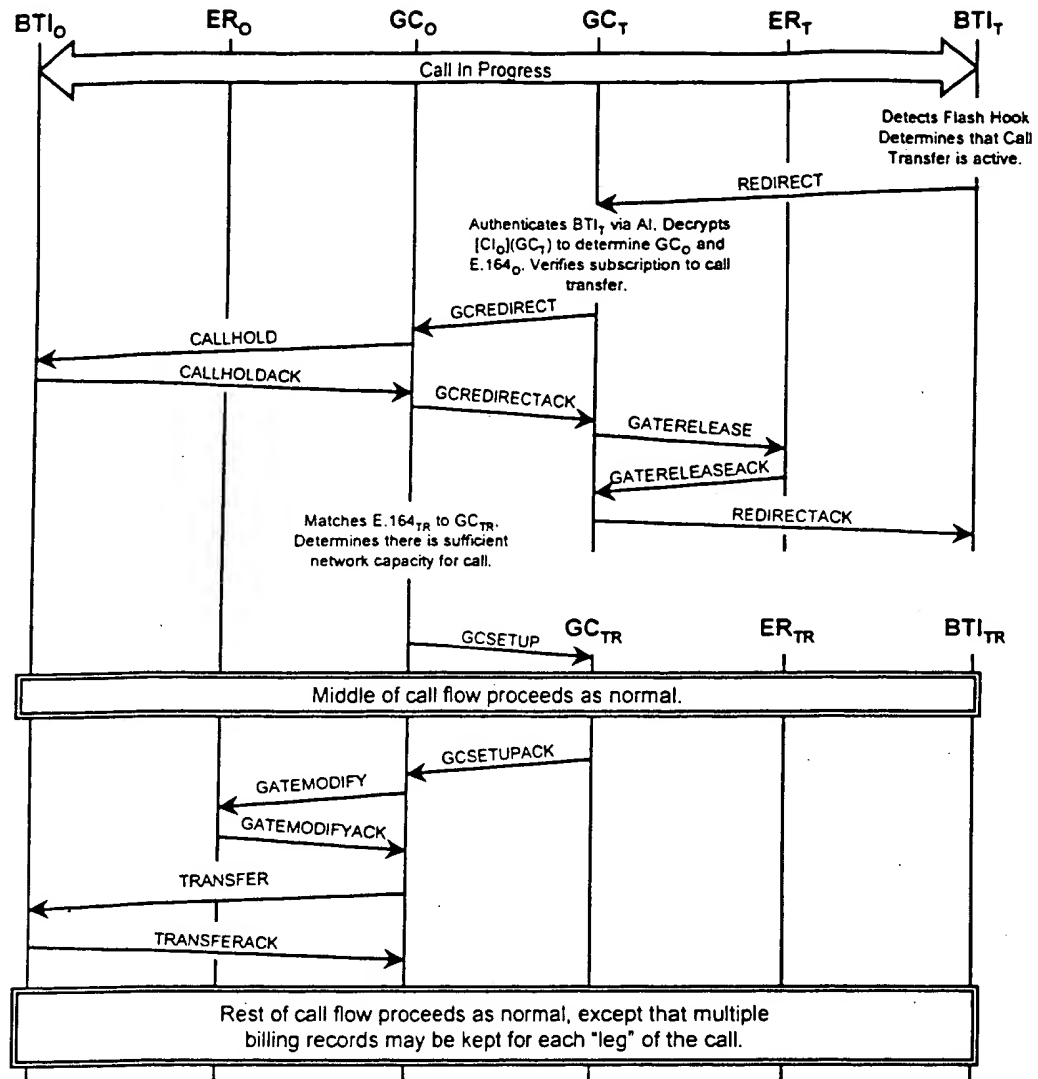


Figure 31

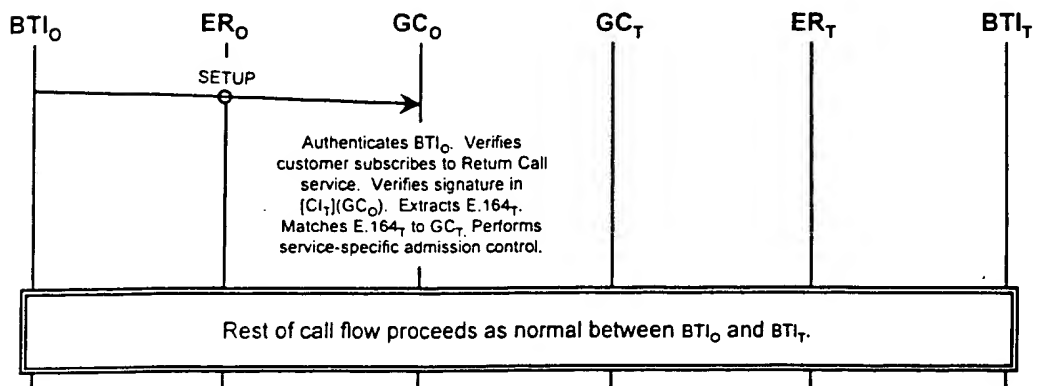


Figure 32

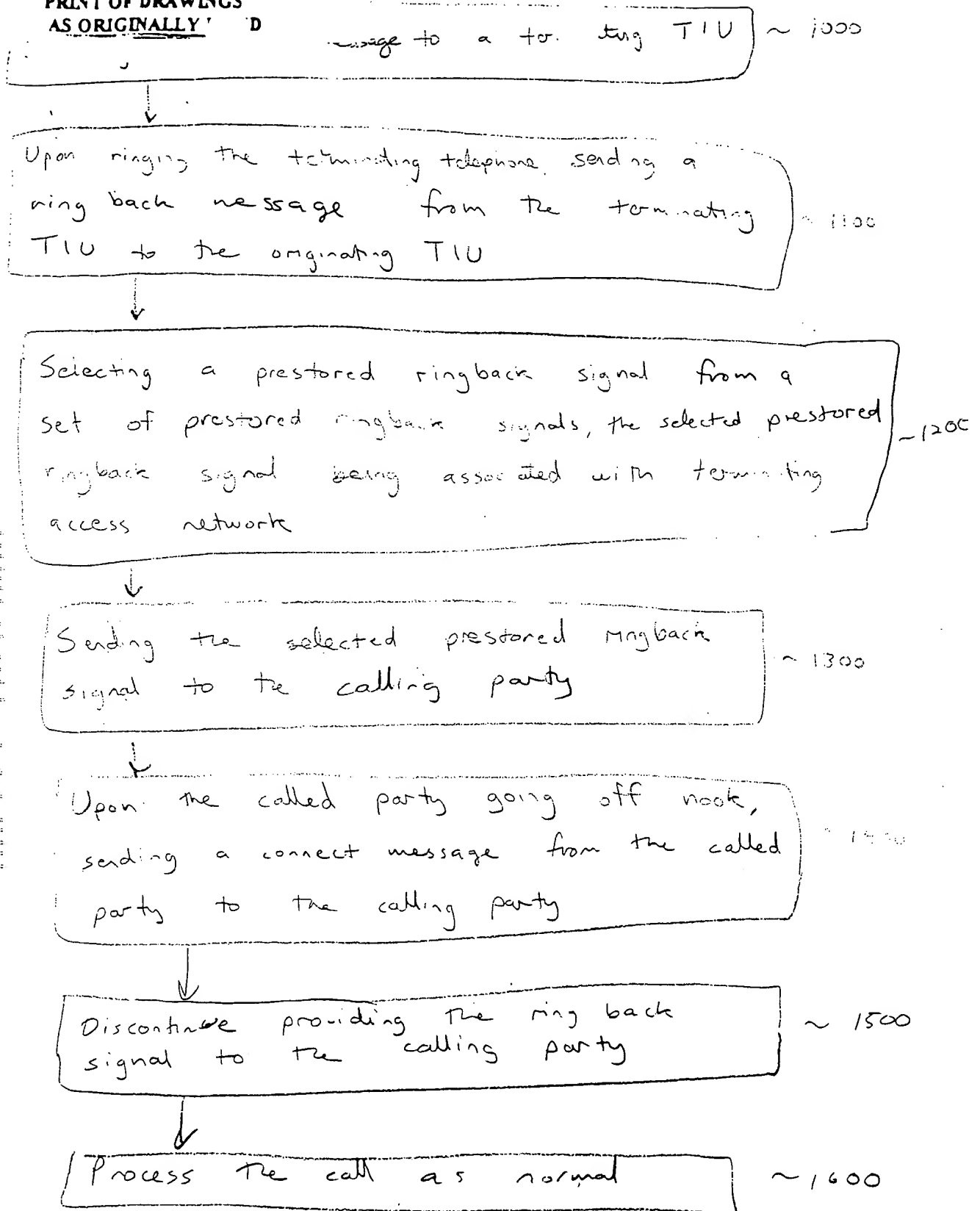


FIG. 33

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See from the calling

~ 700

Send a gate setup message from the  $GC_T$  to  $NED_T$  ~ 710

Send a gate setup acknowledgment message from  $NED_T$  to  $GC_T$  ~ 715

Send a setup message from  $GC_T$  to  $TIU_T$  ~ 720

Send a setup acknowledgment message having the call forwarding flag from  $TIU_T$  to  $GC_T$  ~ 730

Verify, at  $GC_T$ , call forwarding service subscription by called party ~ 740

750 Determine forwarding number and billing information at  $GC_T$

755 Send setup acknowledgment message from  $GC_T$  to  $GC_0$

76 Send a setup message from  $GC_0$  to  $GC_F$

Continue processing of call

~ 780

Send a gate release message from  $GC_T$  to  $NED_T$  ~ 761

~ 765 Close gate at  $NED_T$

Send a gate release acknowledgment message from  $NED_T$  to  $GC_T$

~ 770

= 16.34

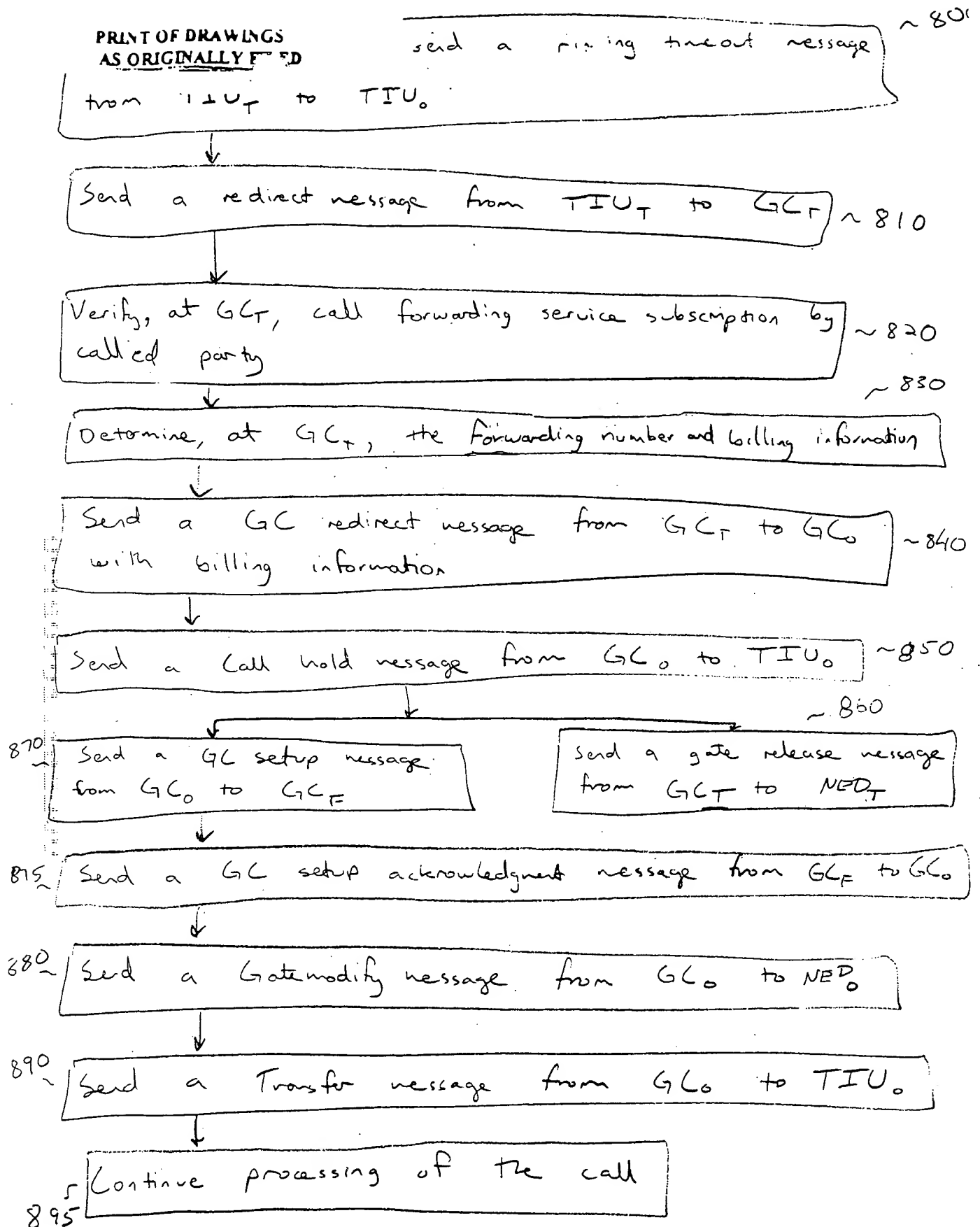


FIG. 35

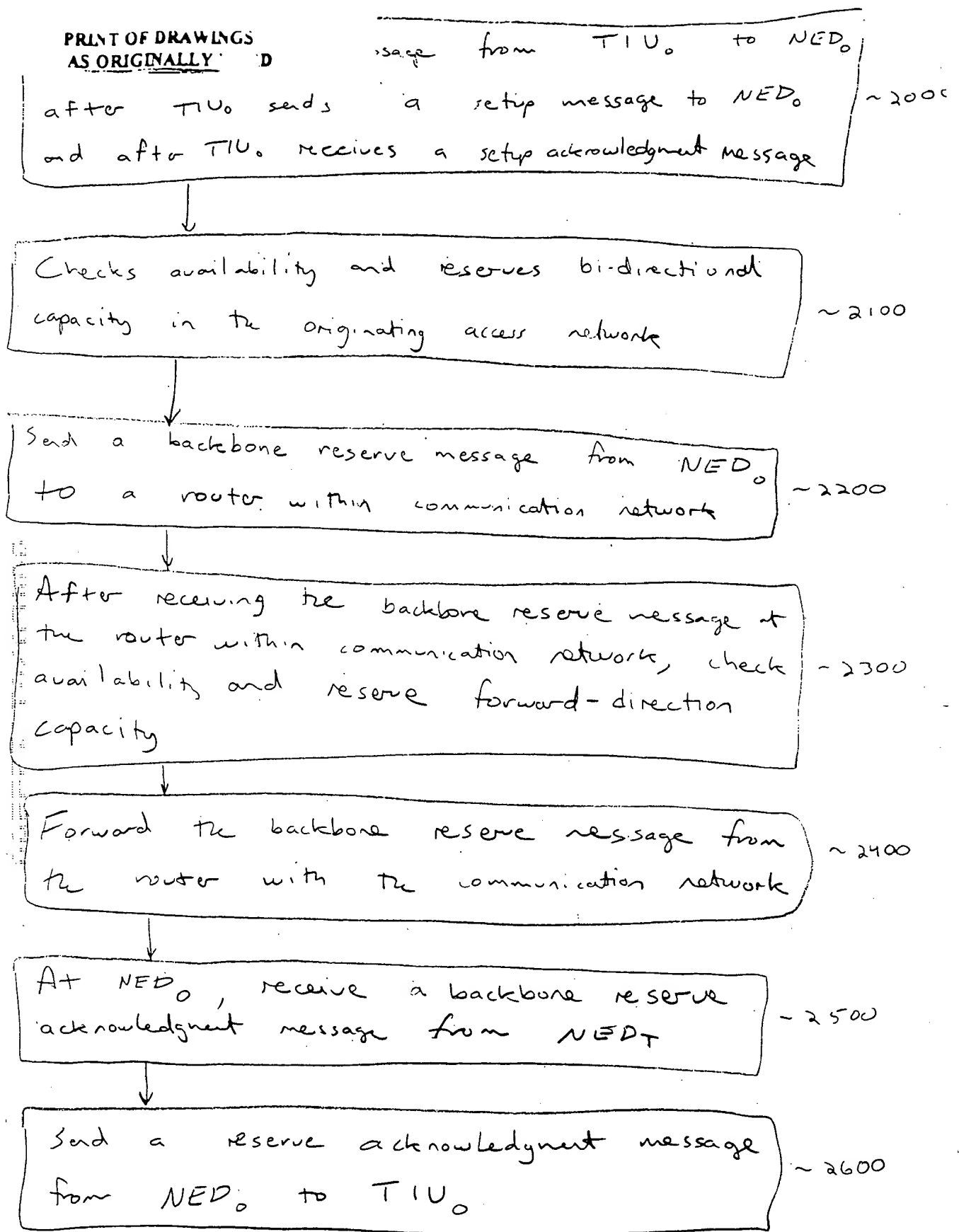


FIG. 37